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The impact of South African supermarkets on agricultural and industrial development in the Southern African Development Community

by

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DECLARATION

I declare that the thesis, which I hereby submit for the degree of Doctor of Philosophy in Agricultural Economics at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

SIGNATURE: …………...……… DATE: ……………….

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The Lord is my shepherd; I shall not want.
He makes me to lie down in green pastures: He leads me besides the still waters.
He restores my soul: He leads me in the paths of righteousness for his name's sake.
Yea, though I walk through the valley of the shadow of death, I will fear no evil:
For you are with me; your rod and your staff they comfort me.
You prepare a table before me in the presence of my enemies:
You anoint my head with oil; my cup runs over.
Surely goodness and mercy shall follow me all the days of my life: and I shall dwell in the house of the Lord for ever.

God bless you all.

The impact of South African supermarkets on agricultural and industrial development in the Southern African Development Community

By

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Degree: PhD (Agricultural Economics)

Department: Agricultural Economics, Extension and Rural Development

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ABSTRACT

Supermarkets have become important in food retail in both developed and developing countries. Supermarkets in developed countries are expanding to developing countries such as Latin America and Asia resulting in transformation of the agro-food systems. As elsewhere in the world, supermarkets are also expanding rapidly in Africa. The growth and expansion of supermarkets is mainly spearheaded by South African supermarkets and has been facilitated by trade liberalization, increased economic growth, positive political changes, regional integration arrangements, increased urbanisation, increased per capita income and middle class population groups and liberalization of foreign direct investment. The increased foreign direct investment (FDI) by South African supermarkets into SADC and the rest of Africa may be impacting on firms, households and the economy in the host nations in various ways. As much as the FDI by South African firms bring the much-needed capital for development, the impact of South Africa supermarkets in SADC and the rest of Africa is least understood.

The impact of the expansion of South African supermarkets in the retail sector in other African countries has not been elucidated. Therefore, the objective of this study was to determine the impact of supermarkets on agricultural and industrial (mainly the food processing and manufacturing sector) development in SADC by examining their sourcing and procurement practices. From the identified gaps in literature the study attempts to answer the following questions: what is the extent of growth and expansion of South African supermarkets in case study countries; what are the nature of sourcing and procurement practices and the factors influencing the choice of procurement systems; what are the impacts of these sourcing and procurement practices on farmers and food processors in case-study countries and do farmers gain by participating in the supermarkets FFV supply chain in case-study countries.

A case study of three countries (Botswana, Namibia and Zambia) and two supply chains were studied. The study used qualitative and quantitative methods in collecting data in order to elucidate the impacts of these supermarkets on agricultural and industrial (food processing) development in the case study countries. A survey of South African and local chain supermarkets, local shops, food processors, small-scale farmers supplying fresh fruit and vegetables (FFV) to chain supermarkets and the traditional FFV markets was undertaken in the case-study countries in 2004, 2005 and 2007 using questionnaires and checklists. The survey data were augmented with key informant and focus group discussions and secondary data. The analytical methods used included descriptive analysis, non-parametric statistics and a two-step treatment regression analysis model. The conceptual framework for analysing the sourcing/procurement practices of supermarkets and a model to show how impacts in host countries could occur as a result of sourcing decisions were developed and used in the study.

The results of the survey of products sold in supermarkets and local shops showed that 80% of all processed food products are sourced from South Africa. About 100% of temperate fruit and 70-100% tropical fruit are sourced from South Africa in the case-study countries. About 80% of fresh vegetables are sourced from farmers in Zambia and about 80 % are sourced from South Africa for Botswana and Namibia. The results also revealed that supermarkets used a mixture of procurement systems for FFV and processed food products. These systems included use of specialised sourcing and procurement companies; direct delivery of FFV to individual supermarket stores;

specialised FFV wholesalers; distribution centres; outsourcing. Using the structured questionnaire supermarket managers were asked the criteria used in sourcing the selected products. The results of the parametric analysis of the responses showed that price, volume, quality and trust were the most important attributes considered respectively.

In order to estimate the impact of supermarkets on farmers a household survey was carried out using a structured questionnaire. There were noticeable differences in resources between farmers who supply to the supermarkets and those who supply to the traditional markets. Factors that influence small-scale farmers' participation in the supermarkets supply chain were identified from the results of the estimated probit model. The results of the two-step treatment regression model showed that participation in the supermarkets channel had a positive impact on small-scale farmers' income. Mean comparison of income between the two groups of farmers showed that farmers who supplied fresh vegetables to chain supermarkets had a significantly higher income compared to those who supplied to traditional markets in Zambia. This finding confirms hypothesis 2 of the study. The study did not explore causality due to insufficient data on lagged assets.

Impacts on the food-processing sector were deduced by carrying out a survey of food processing firms in case-study countries. The goal was to determine the type of firms that access supermarkets supply chain for selected products and determine other channels used for marketing of the products. About 75% of firms started their operations in the 1990s. This period also coincided with rapid supermarket expansion in case-study countries. A symbiotic relationship exists between supermarkets and large processing firms in the case-study countries. There was no evidence to show that supermarkets have caused firms to increase in size or that supermarkets prevented entry of agro-processors in the food processing industry. Small-scale processing firms do not access supermarket supply chains in case-study countries and sell their products through the traditional channels such as small shops and wholesales. Various constraints still prohibit small-scale firms from accessing supermarkets such as lack of capital and lack of finances.

From the results of the models and focus group discussions the study concluded that small-scale farmers who meet supermarkets sourcing/procurement requirements were able to access the FFV supply chain of the South African chain supermarkets. Those who did not meet the supermarket requirements who are the majority small-scale farmers and food processors were excluded. Those small-scale farmers who were able to supply to supermarkets earned significantly higher income compared to those who supply to the traditional markets. The study also concluded that membership in a farmers organization does not increase the chances of a farmers accessing and supplying to supermarkets. There is need to re-evaluate the farmer organizations that are being formed to ensure that the organizations assist farmers in accessing supermarkets FFV supply chain and marketing of produce in general. The study also concluded that the traditional markets are still important in case-study countries. These markets need to be improved and developed as small-scale farmers and food processors easily assess them. The study recommended that a holistic analysis of supermarket impacts in the region using general equilibrium type of models is needed, ways to ensure small-scale farmers and processors participation in supermarket FFV supply chain should be determined and more research on the practices of supermarkets as oligopsonists in the region should be carried out.

The study was able to document the extent of growth and expansion of supermarkets in case-study countries and as such contributed to literature by describing the sourcing and procurement practices and factors that influence supermarket sourcing and procurement decisions in case-study countries, the study contributed to literature by identifying the type of small-scale farmers who access chain supermarkets in case-study countries, the study contributed by identifying the factors that influence farmers decisions to supply FFV markets and the study showed that supermarkets involvement in the FFV and dairy supply chains in case-study countries had a positive impact in these sectors.

Key words: supermarkets, supply chain, SADC, sourcing/procurement, impact

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of variance
CMA	Common monetary area
COMESA	Common Market for Eastern and Southern Africa
DBSA	Development Bank of Southern Africa
DC	Distribution centre
DTI	Department of trade and industry
ESRF	Economic and Social Research Foundation
EU	European Union
IFAD	International Fund for Agricultural Development
FDI	Foreign direct investment
FFV	Fresh fruits and vegetables
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
GNP	Gross national product
G & S	Grades and standards
HACCP	Hazard analysis and critical control point
ICT	Information, communication and technology
ILO	International Labour Organization
IMF	International Monetary Fund
JSE	Johannesburg stock exchange
LSD	Least squares difference
MDG	Millennium development goals
METCASH	Metro cash and carry
METSEF	Metro Cash and Carry and Sefalana
NEPAD	The New Partnership for Africa's Development
OLS	Ordinary least squares
R	rand
RSA	Republic of South Africa
SA	South Africa
SACU	Southern African customs union
SADC	Southern African Development Community
SCM	Supply chain management
UHT	Ultra high temperature
UK	United Kingdom
US	United States
USD	United States dollar
WTO	World Trade Organization
ZATAC	Zambia agribusiness technical assistance centre